



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,656	11/29/2001	Yosuke Kusaka	111231	2644

25944 7590 09/08/2006

OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER

AGGARWAL, YOGESH K

ART UNIT PAPER NUMBER

2622

DATE MAILED: 09/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/995,656

Applicant(s)

KUSAKA, YOSUKE

Examiner

Yogesh K. Aggarwal

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(e). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-11, 13, 15 and 17-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-11, 13, 15 and 17-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/21/2006 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 8-11, 13, 15 and 17-27 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 8, 15, 10, 18, 21-23 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Ishiguro et al. (US Patent # 7,062,230).

[Claims 8 and 15]

Ishiguro et al. teaches an image-capturing device (figure 1a), comprising an image sensor (CCD 112) that captures a subject image and generates image data (col. 5 lines 53-61); an operation member (figure 14, shutter button 512) that is operated by a user to cause the image sensor to capture a subject image and generate image data (col. 5 lines 31-42), a memory (memory 163 or

Art Unit: 2622

162) and an image storage control unit (CPU 161) that controls transfer of image data, and is operable in a communication mode, to automatically transfer the image data generated by the image sensor in response to operation of the operation member by the user from the image capture device to an external device via a communication circuit capable of communicating with the external device to store the image data in the external device (col. 5 lines 31-42, col. 7 line 46-col. 8 line 67, figure 2), and when communication with the external device is disabled, to transfer the image data generated by the image sensor to the memory so that the operation member can be operated to cause the image sensor to capture a next subject image (col. 13 lines 10-56, figure 9).

[Claim 10]

Ishiguro teaches wherein the image storage control unit detects whether or not wireless communication with the external device is enabled and transfers image data generated by the image sensor to the memory if wireless communication with the external device is detected to be disabled (col. 13 lines 54-56).

[Claim 18]

Ishiguro teaches radio waves and are wireless (col. 16 lines 13-15).

[Claim 21]

Ishiguro teaches to transfer the image data to the external device when the communication is enabled (col. 13 lines 54-56).

[Claim 22]

See Examiner notes regarding rejection of claims 8 and 18 respectively.

[Claims 23, 26]

Art Unit: 2622

Ishiguro teaches a mode setting unit that sets operation of the electronic camera in the communication mode in which the image data generated by the image sensor in response to operation of the operation member by the user is automatically transferred from the electronic camera to the external device to store the image data in the external device (col. 5 lines 31-42).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 9, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishiguro et al. (US Patent # 7,062,230).

[Claims 9, 19, 20]

Ishiguro teaches that the non-transmitted images are stored in either a flash memory 162 or buffer memory 163 (col. 12 lines 19-42) but fails to teach wherein any of these memories is detachably mounted in the image-capturing device. However Official Notice is taken of the fact that it is very well known to one of ordinary skilled in the art to have a flash memory to be detachably mounted in the image-capturing device in order to have images easily moved between different devices.

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishiguro et al. (US Patent # 7,062,230) in view of Niwa (US Patent # 6538692).

[Claim 11]

Art Unit: 2622

Ishiguro teaches the limitations of claim 8 but fails to teach wherein image storage control unit detects whether or not a storage capacity of the external device is sufficient and transfers the image data generated by the image sensor to the memory if the storage capacity of the external device is detected to be insufficient.

However Niwa teaches an image recording medium (figure 2, CCD camera 2) having an external recording medium, a unit separate from the image recording medium, coded data is written on the external recording medium 12, space available on the external medium is reduced and, eventually, the available space on the external recording medium 12 becomes less than the amount of coded picture data to be recorded next. At this time, the determination module 30 sends the write disable signal to the external R/W controller 10, and the write enable signal to the internal R/W controller 22. The determination module 30 sends these control signals each time it detects such a condition. These signals prevent coded picture data from being written on the external recording medium 12 and cause it to be written into the internal memory 24. Coded picture data is written into the internal memory 24 until a user issues a stop instruction or until the internal memory 24 becomes full (col. 6 line 55-col. 7 line 5) in order to provide a data storage control method and system that prevent a situation in which recording is interrupted because an external medium becomes full before all intended data is recorded.

Therefore taking the combined teachings of Ishiguro and Niwa it would have been obvious to one skilled in the art at the time of the invention to have been motivated to have an image storage control unit detects whether or not a storage capacity of the external device is sufficient and keeps the image data within the image-capturing device if the storage capacity of the external device is detected to be insufficient as taught in Niwa in order to provide a data

Art Unit: 2622

storage control method and system that prevent a situation in which recording is interrupted because an external medium becomes full before all intended data is recorded.

8. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishiguro et al. (US Patent # 7,062,230) in view of Gaylord (US Patent # 6,773,953).

[Claim 17]

Ishiguro fails to teach wherein the image storage control unit does not store image data, which has been transferred to the external device in the memory. However Gaylord teaches a capturing device 215 may be coupled to an external computer 200 that enables the capturing device to transmit digital signals to the computer without interim storage in an on-board buffer.

Therefore taking the combined teachings of Ishiguro and Gaylord it would be obvious to one skilled in the art at the time of the invention to have been motivated to have an image storage control unit that does not store image data, which has been transferred to the external device in the memory in order to have a high speed transfer without storing image data.

9. Claims 25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishiguro et al. (US Patent # 7,062,230) in view of Nanba (US Patent # 6,297,870).

[Claims 25, 27]

Ishiguro teaches wherein the mode setting unit sets operation of the image-capture device in either (1) the communication mode as a first mode (e.g. normal transmission mode, figure 16), or (2) a second mode in which the image data generated by the image sensor is automatically transferred to the memory to store the image data in the memory (col. 7 lines 46-64).

Ishiguro fails to teach wherein the image storage control unit controls transfer of image data to automatically transfer the image data generated by the image sensor to the memory to

Art Unit: 2622

store the image data in the memory, and to transfer the image data generated by the image sensor to the external device when the memory is not usable. However Nanba teaches transferring the image data temporarily stored at said buffer memory to the external device via said USB cable communication circuit if the portable memory is substantially unusable i.e. not connected or full (col. 7 line 21-col. 8 line 23, figures 6A-6B).

Therefore taking the combined teachings of Ishiguro and Nanba, it would be obvious to one skilled in the art at the time of the invention to have been motivated to have used the image control unit that controls transfer of image data to automatically transfer the image data generated by the image sensor to the memory to store the image data in the memory, and to transfer the image data generated by the image sensor to the external device when the memory is not usable in order to not miss a photo-taking opportunity in case the memory card becomes unusable during a picture taking operation.

10. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nanba (US Patent # 6,297,870), Fukuoka (US Patent # 6,104,430) and in further view of Moronaga et al. (US Patent # 5,956,084).

[Claim 13]

Nanba discloses an image-capturing device that is an electronic camera (figure 4) comprising an image sensor (303) that captures a subject image and generates image data (col. 4 lines 28-30), a buffer memory (209) that temporarily stores the image data (col. 5 lines 43-49), a connection unit (212) that is a slot (figure 3, element 17) that electrically and detachably connects a portable memory that is a memory card (8) to a main body (col. 5 lines 66-67), a USB communication circuit (213) capable of communicating with an external device (col. 6 lines 1-3). It would be

Art Unit: 2622

obvious that an image storage control unit (211) will store the image data temporarily into a buffer memory (209) and transfer it directly and automatically into the portable memory (8) connected at said connection unit (212). Nanba also teaches transferring the image data temporarily stored at said buffer memory to the portable memory 8 if it is connected at said connection unit (col. 7 line 21-col. 8 line 23, figures 6A-6B). Nanba further teaches in a case where the memory card 8 is not installed in the digital camera 1 or the remaining capacity of the memory card 8 is not sufficient, the photographed image is automatically recorded in the hard disk HD of the PC 1000. In other words, the recording destination of the photographed image can be controlled depending on whether or not the memory card 8 is installed in the digital camera 1 (col. 8 lines 14-23). Therefore Nanba teaches detecting a memory card is installed or not and if it is not installed the data is transferred to an external device.

Nanba fails to teach a connection unit that electrically, detachably, selectively and exclusively connects to a main body of the image-capturing device either a portable memory or a wireless communication circuit capable of wirelessly communicating with an external device;

However Fukuoka teaches a includes a card connector 17 for receiving two PCMCIA type cards such as a memory card 16 and an input/output (I/O) card 15 which has a communication line 24 connected thereto. The I/O card 15 allows images, audio, and control information to be transmitted into and out of the camera 30 wherein the I/O card 15 may be wireless (col. 3 lines 17-22, col. 4 lines 42-46).

Therefore taking the combined teachings of Nanba and Fukuoka, it would be obvious to one skilled in the art at the time of the invention to have been motivated to use the card connector interface of Fukuoka into the camera of Nanba to have a portable memory card device

Art Unit: 2622

that functions as either a portable memory or a wireless communication circuit capable of wirelessly communicating with an external device and therefore detects whether the wireless device is connected. The benefit of doing so would be to have a memory card and a wireless device be connected to the same connector thereby reducing the size of the camera.

Nanba in view of Fukuoka fails to teach an image storage control unit that controls transfer of image data to automatically and directly transfer the image data generated by the image sensor to the portable memory if the portable memory is connected at the connection unit.

However Moronaga et al. teach an electronic still video camera having an internal RAM (figures 4 and 5, element 28) be directly transferred automatically to an external RAM via switch 116 and 153 when the internal frame is full (col. 14 lines 9-31).

Therefore taking the combined teachings of Nanba, Fukuoka and Moronaga, it would be obvious to one skilled in the art at the time of the invention to have been motivated to have an image storage control unit that controls transfer of image data to automatically and directly transfer the image data generated by the image sensor to a portable memory if the portable memory is connected at the connection unit in order to have the operation of data transfer attained in a simplified manner.

11. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishiguro et al. (US Patent # 7,062,230), Fukuoka (US Patent # 6,104,430) and in further view of Nanba (US Patent # 6,297,870).

[Claim 24]

Ishiguro fails to teach a connection unit that electrically, detachably, selectively and exclusively connects to a main body of the image-capturing device either a portable memory or a wireless

Art Unit: 2622

communication circuit capable of wirelessly communicating with the external device, and a detection unit that detects whether or not the wireless communication circuit is connected at the connection unit, wherein the mode setting unit sets operation of the image-capturing device in the communication mode when the detection unit detects that the wireless communication circuit is connected at the connection unit, and wherein the image storage control unit controls transfer of image data to automatically and wirelessly transfer the image data generated by the image sensor to the external device via the wireless communication circuit in the communication mode.

However Fukuoka teaches a includes a card connector 17 for receiving two PCMCIA type cards such as a memory card 16 and an input/output (I/O) card 15 which has a communication line 24 connected thereto. The I/O card 15 allows images, audio, and control information to be transmitted into and out of the camera 30 wherein the I/O card 15 may be wireless (col. 3 lines 17-22, col. 4 lines 42-46).

Therefore taking the combined teachings of Ishiguro and Fukuoka, it would be obvious to one skilled in the art at the time of the invention to have been motivated to use the card connector interface of Fukuoka into the camera of Nanba to have a portable memory card device that functions as either a portable memory or a wireless communication circuit capable of wirelessly communicating with an external device and therefore detects whether the wireless device is connected. The benefit of doing so would be to have a memory card and a wireless device be connected to the same connector thereby reducing the size of the camera.

Ishiguro in view of Fukuoka fails to teach a detection unit that detects whether or not the wireless communication circuit is connected at the connection unit, wherein the mode setting unit sets operation of the image-capturing device in the communication mode when the detection

Art Unit: 2622

unit detects that the wireless communication circuit is connected at the connection unit, and wherein the image storage control unit controls transfer of image data to automatically and wirelessly transfer the image data generated by the image sensor to the external device via the wireless communication circuit in the communication mode.

However Nanba teaches transferring the image data temporarily stored at said buffer memory to the portable memory 8 if it is connected at said connection unit (col. 7 line 21-col. 8 line 23, figures 6A-6B). Nanba further teaches in a case where the memory card 8 is not installed in the digital camera 1 or the remaining capacity of the memory card 8 is not sufficient, the photographed image is automatically recorded in the hard disk HD of the PC 1000. In other words, the recording destination of the photographed image can be controlled depending on whether or not the memory card 8 is installed in the digital camera 1 (col. 8 lines 14-23). Therefore Nanba teaches detecting a memory card is installed or not and if it is not installed the data is transferred to an external device.

Therefore taking the combined teachings of Ishiguro, Fukuoka and Nanba it would be obvious to one skilled in the art at the time of the invention to have been motivated to use a detection unit that detects whether or not the wireless communication circuit is connected at the connection unit, wherein the mode setting unit sets operation of the image-capturing device in the communication mode when the detection unit detects that the wireless communication circuit is connected at the connection unit, and wherein the image storage control unit controls transfer of image data to automatically and wirelessly transfer the image data generated by the image sensor to the external device via the wireless communication circuit in the communication mode

Art Unit: 2622

in order to not miss a photo-taking opportunity in case the memory card becomes unusable during a picture taking operation.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yogesh K. Aggarwal whose telephone number is (571) 272-7360. The examiner can normally be reached on M-F 9:00AM-5:30PM.

12. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on (571)-272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YKA
August 18, 2006



VIVEK SRIVASTAVA
PRIMARY EXAMINER